



Original Article

Synthesis, Examination of Various Seven Rings, and Effects on Corrosion and Fungus

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Cycloaddition reaction

Oxazepine

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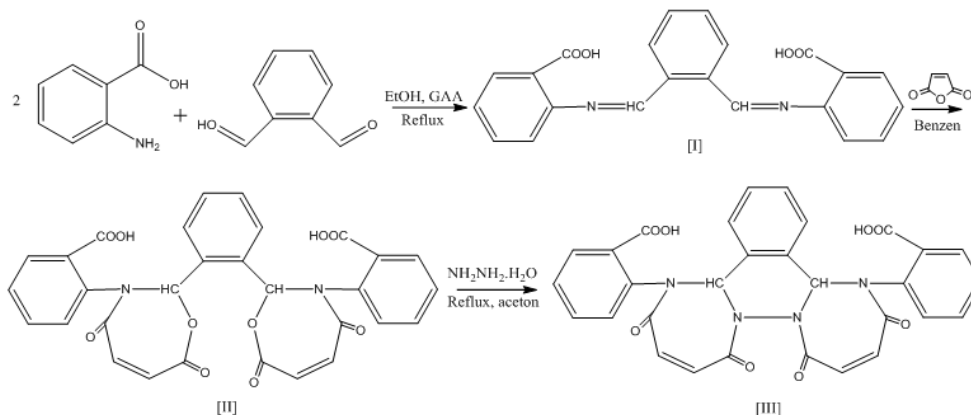
Schiff bases

Antifungal Activity

ABSTRACT

The majority of benzodiazepines is administered orally and has various beneficial effects, including psychotropic, anxiolytic, hypnotic, sedative, muscle relaxing, anticonvulsant, and amnesic ones. These include benefits for alcohol dependence, epileptic seizures, irritable disorders, scare, and insomnia. The goal of this study was to create bicycles from benzodiazepines through cyclization steps. All generated compounds were examined by using several analytical techniques, including: FT-IR, ¹H-NMR, Mass spectroscopy analysis, and other chemical characterization, with formatted compounds being assessed as antifungals and inhibitors. These compounds were utilized to explain biological activity against "*Aspergilla's and Candida*" albicans at various concentrations (5, 10, 15, and 20 mg/ml⁻¹). The findings demonstrated that all compounds were active against all varieties of fungi and that oxazepine, diazepine bicycles, and heteroatoms in the structure inhibited the corrosion of mild steel in 0.5M HCl.

GRAPHICAL ABSTRACT



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